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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,237

08/22/2006

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EXAMINER

LEE, DORIS L

ART UNIT

PAPER NUMBER

1796

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/590,237	<b>Applicant(s)</b> SOYAMA ET AL.	
	<b>Examiner</b> Doris L. Lee	<b>Art Unit</b> 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 5-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on December 11, 2008. In particular, claim 9 which has been amended to further exemplify the fly ash components and claims 14 and 15 which are newly presented claims. This combination of limitations was not present in the original claims. Thus, the following action is properly made final.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. All outstanding objections and rejections, except for those maintained below, are withdrawn in light of applicant's amendment filed on December 11, 2008.

#### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claim 15** is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

#### ***Claim Rejections - 35 USC § 112***

6. **Claim 15** provides for the use of fly ash, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without

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any active, positive steps delimiting how this use is actually practiced. Although all pending claims are non-statutory "use claims" as explained above, nevertheless, in the interests of compact prosecution the examiner will construe the claims as if they are directed to a process of using fly ash.

***Claim Rejections - 35 USC § 103***

7. **Claims 1, 2, 5, 8 and 12-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hwang et al (WO 99/37592)** in view of **Goodwin (US 3,331,671)**.

The discussion regarding Hwang '592 and Goodwin in paragraph 5 of the Office Action mailed on September 11, 2008 has been incorporated here by reference.

8. **Claims 5-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hwang et al (WO 99/37592)** in view of **Goodwin (US 3,331,671)**, **Chang (US 5,505,766)** and **Nomura et al (JP 2001-220193, see machine translation)**.

The discussion regarding Hwang '592, Goodwin and Nomura in paragraph 6 of the Office Action mailed on September 11, 2008 has been incorporated here by reference.

9. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Hwang et al (WO 99/37592)** in view of **Goodwin (US 3,331,671)** and **Nodera et al (US 5,837,757)**.

The discussion regarding Hwang '592, Goodwin and Nodera in paragraph 7 of the Office Action mailed on September 11, 2008 has been incorporated here by reference.

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10. **Claims 9-10 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hwang et al (WO 99/37592)** in view of **Goodwin (US 3,331,671)** and **Hwang (US 5,047,145)**.

The discussion regarding Huang '592 and Goodwin in paragraph 7 above is incorporated here by reference.

**Regarding claims 9 and 10**, Hwang '592 does not explicitly teach the composition of the clean fly ash in the composition, however, Hwang '592 does teach that the fly ash was cleaned by the process elucidated in Hwang '145 (page 10, line 14).

Huang '145 teaches that the clean fly ash contains 59.30 % SiO<sub>2</sub>, 29.41% Al<sub>2</sub>O<sub>3</sub>, and Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, MgO and CaO as further components (col. 5, line 45-50), therefore the content of silicon dioxide and aluminum oxide is 88.71 %.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a fly ash with the compositional makeup of Huang '145 in the composition of Hwang '592. One would have been motivated to do so because Hwang '592 specifically directs one's attention to Huang '145 and one would have fly ash with increased value components (Huang '145, col. 1, lines 5-10). They are combinable because they are concerned with the same field of endeavor, namely fly ash.

**Regarding claim 14**, Hwang '592 teaches that the plastic resin can be a combination of plastics, many of which are not polycarbonates (page 7, line 50- page 8, line 35).

11. **Claims 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Hwang et al (WO 99/37592)** with evidence provided by **Bennett (US 4,229,329)**.

**Regarding claim 15**, Hwang teaches a process of using fly ash particles (page 4, line 9) having a mean particle size of less than 10 microns (page 5, line 27) in a polycarbonate (page 8, line 34).

Since the prior art teaches the exact type of resin and fly ash component as presently claimed, it is therefore inherent that the prior art composition has the desired flame retardancy since such a property is evidently dependent upon the nature of the composition used. Please refer to Bennet which teaches that fly ash has a flame retardant property (Abstract). Case law holds that a material and its properties are inseparable. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

### ***Response to Arguments***

12. Applicant's arguments filed December 11, 2008 have been fully considered but they are not persuasive for the reasons as set forth below.

13. **Applicant's argument:** Hwang discloses the use of fly ash as a filler for plastic products, Hwang relates to resin compositions containing fillers which can be derived from fly ash, but which structurally distinguished from the fly ash itself.

**Examiner's response:** *The clean fly ash in Hwang has been cleaned to remove carbon content, cenospheres or magnetic particles. What remains is still considered fly ash and still meets the claimed composition which has been most clearly set forth in the rejection of claim 9 above. And although the present invention claims flame retardancy due to the fly ash incorporated into the polycarbonate rather than just using fly ash as a filler as taught by Hwang, it is noted that "[t]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's*

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*functioning, does not render the old composition patentably new to the discoverer.”*

*Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999).*

### **Conclusion**

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doris L. Lee whose telephone number is (571)270-3872. The examiner can normally be reached on Monday - Thursday 7:30 am to 5 pm and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Doris L Lee/  
Examiner, Art Unit 1796

/Vasu Jagannathan/  
Supervisory Patent Examiner, Art Unit 1796